

What is claimed is:

1 - A process of depositing at least one uncured colored rubber mix forming a contrasting motif on the outer surface of a tire, comprising the following steps:

- 5 ➤ preparing a blank of the uncured tire to be molded, comprising all the constituents except for the colored rubber mix(es),
- depositing the colored rubber(s) in at least one cavity formed on a removable insert, each cavity having the general form of the motif to be molded and having a total volume (V0), the total volume of non-vulcanized colored rubber (V1) placed
- 10 in each cavity being less than the volume (V0);
- mounting the insert in a suitable housing provided on the molding surface of the mold for the tire;
- engaging the tire blank within the mold;
- molding and vulcanizing the tire.
- 15 2 - The depositing process according to Claim 1 wherein the volume (V0) of each cavity of the insert is such that the volume of uncured rubber (V1) is less than 80% of the volume (V0).
- 3 - The depositing process according to Claim 1 wherein the cavity provided to be partially filled with one or more colored mixes comprises, on at least one of its walls, at least one recess which is left empty of any uncured mix at the time of filling of the cavity by the colored
- 20 mix(es).
- 4 - The depositing process according to Claim 1 wherein layers of different colors are put in place successively one on another in at least one cavity forming a motif, the layer farthest to the outside of said cavity covering the entire surface of said motif so as to ensure holding of the different layers during mounting of the insert in the mold.
- 25 5 -The depositing process according to Claim 1 wherein, once the insert is in place in its housing on the mold, said insert protrudes from the surface of the mold so as to mold in the tire at least one groove bordering the deposited motif.

...

6 - A depositing process for at least two uncured colored rubber mixes forming a contrasting motif on the outer surface of a tire, comprising the following steps:

- preparing a blank of the uncured tire to be molded, comprising all the constituents except for the colored rubber mixes,
- 5 ➤ depositing a first colored rubber mix in part of a cavity formed on a removable insert and corresponding to the colored motif to be molded, this part of the cavity having a total volume greater than the volume of said first non-vulcanized rubber mix placed in said cavity;
- 10 ➤ depositing at least a second rubber mix of a different color from the first colored mix in the cavity and on the first mix, the volume of this second rubber mix being such that the total of the volumes of all the colored mixes forming the colored motif is less than the total volume of the cavity corresponding to the volume of the motif;
- 15 ➤ mounting the insert in a suitable housing provided on the molding surface of the mold for the tire;
- engaging the tire blank within the mold;
- molding and vulcanizing the tire.

7 - A mold for tires, comprising a shell for molding a sidewall, the shell having a housing opening on to the molding surface of the mold, and an insert to be mounted in the housing, the insert having a molding surface corresponding to the marking(s) to be molded, the insert comprising at least one cavity opening on to its molding surface, this cavity being calibrated suitably to form a reserve intended to absorb the dilations to which the mixes are subjected during vulcanization and molding of the tire.

8 - The mold for tires according to Claim 7 wherein means are provided for holding the insert in place in its housing, said means making it possible, once the molding has been effected, to remove the tire from the mold while leaving the insert in place in its housing.

9 - The mold for tires according to Claim 8 wherein the insert comprises at least one pin protruding from the back of the insert, of a length greater than the thickness of the shell at the level of the housing, and in that there is provided both a blocking device which can hold and

- 12 -

release the end of said pin in order to immobilize the insert in its housing and an ejection device for removing said insert from its housing.

10 - The mold for tires according to Claim 8 wherein the insert is produced at least in part from a magnetic material and in that permanent magnets which resist at least the vulcanization
5 temperature are provided in the mold to exert an appropriate magnetic force for holding said insert in place in its housing, this force also being appropriate for holding the insert in place during removal of each molded tire from the mold.

11 - The mold for tires according to Claim 7 wherein the walls of each cavity of the insert are inclined by at least 5 degrees relative to a line perpendicular to the surface of the mold so as to
10 facilitate the demolding of the motif.

...